



Federal Communications Commission
Washington, D.C. 20554

April 13, 2020

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950 Pennsylvania Avenue, N.W.
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RE: *Cohen v. Apple, Inc.*, No. C 19-05322 WHA (N.D. Cal.)

Dear Mr. Hunt:

The Court in the above referenced case issued an order on February 10, 2020, inviting the Federal Communications Commission to “participate as an amicus curiae to better inform the Court on the proper application of its regulation and guidance” concerning radiofrequency emissions from cell phones. In response to the Court’s invitation, the Commission respectfully requests that the Department of Justice file a Statement of Interest in the case attaching this letter.

INTRODUCTION AND SUMMARY

In the Communications Act of 1934, Congress conferred on the FCC comprehensive authority to regulate the provision of wireless telecommunications services. As part of this mandate, the Act expressly authorizes the Commission to adopt limits on radiofrequency emissions for mobile devices, including cell phones. *See* 47 U.S.C. § 303(e). The Commission’s radiofrequency emission standards and testing parameters reflect the Commission’s expert judgment in balancing the goal of facilitating broad deployment of wireless telecommunications technology, while safeguarding the health of American consumers.

Under the FCC’s rules, a cell phone manufacturer cannot sell cell phones in the United States until the FCC certifies that they comply with all applicable rules and regulations (including the RF limits). To obtain this certification, the manufacturer must test its cell phones in accordance with FCC procedures and

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submit the test results to the Commission. If the test results demonstrate that the phones comply with the FCC's RF limits, and the manufacturer further demonstrates that its phones comply with all other applicable rules and regulations, the Commission certifies the cell phones for sale in the United States. The Commission has found that RF emissions from FCC-certified cell phones pose no health risks.

Plaintiffs in this case allege that some models of Apple's iPhone—which were previously certified for sale by the FCC—emit RF energy in excess of the FCC's limits. Plaintiffs base this claim on two sets of third-party tests of Apple's iPhones. (The first set of tests was undertaken by the Chicago Tribune; the second was commissioned by plaintiffs). In response to the Chicago Tribune's report on its testing and independently of this lawsuit, FCC engineers tested many of the same cell phone models that were tested by the Chicago Tribune, including several models of Apple's iPhones. The FCC's own tests confirmed that those phones complied with the Commission's RF standards.

The claims plaintiffs assert raise questions about the policy judgments that the FCC made in crafting its testing and certification procedures for authorizing the sale of cell phones in the United States. Insofar as those claims require the Court to review the validity of the FCC's 2019 decision to retain its existing certification procedures, the Court lacks jurisdiction over them because any such claims are subject to the Hobbs Act and thus can only be brought in a court of appeals in a direct challenge to that FCC order. Any claim that FCC-certified cell phones are unsafe is also preempted by federal law, because it conflicts with the FCC's judgment that cell phones that satisfy the FCC's RF standards pose no health risk and may be certified for sale in the United States.

Finally, plaintiffs' claims that Apple should have made additional disclosures about the RF emissions of its FCC-certified cell phones conflict with the FCC's determination that warnings about FCC-certified cell phones that go beyond those mandated by the FCC could mislead consumers into believing that RF emissions from those phones are unsafe. For this reason, such claims are likewise beyond the Court's jurisdiction and in any event preempted.

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BACKGROUND

The FCC's Regulatory Authority. Under the Communications Act of 1934 (Communications Act or Act), the FCC is the “centraliz[ed] authority” for regulating radio communications and is charged with “mak[ing] available ... to all the people of the United States ... a rapid, efficient, Nation-wide, and world-wide wire and radio communication service.” 47 U.S.C. § 151.

To achieve this objective, “Congress endowed” the FCC “with comprehensive powers to promote and realize the vast potentialities of radio.” *Nat'l Broad. Co. v. FCC*, 319 U.S. 190, 217 (1943). Among other things, the Communications Act empowers the Commission to regulate “the kind of apparatus to be used” for wireless radio communications and “the emissions” that such equipment may produce. 47 U.S.C. § 303(e). The Supreme Court has recognized that “the Commission’s jurisdiction over” such “technical matters ... is clearly exclusive.” *Head v. New Mexico Bd. of Exam'rs in Optometry*, 374 U.S. 424, 430 n.6 (1963).

FCC Regulation of Radiofrequency Emissions. In establishing technical standards for radio communications, the FCC has taken into account its obligations under the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 *et seq.*, which “requires agencies of the Federal Government to evaluate the effects of their actions on the quality of the human environment.” *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, 11 FCC Rcd 15123, 15125 ¶ 5 (1996) (*1996 RF Order*). In accordance with NEPA, the FCC has promulgated regulations to limit human exposure to radiofrequency (RF) energy from all transmitting facilities, operations, and devices it regulates. *See* 47 C.F.R. §§ 1.1307, 1.1310, 2.1091, 2.1093. The agency adopted such restrictions in response to scientific findings that exposure to high levels of RF energy can result in the overheating of human tissue. *See* RF Safety FAQ, Question 5, available at <https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety#Q5>. The Commission declined to “adopt stricter standards” based on “controversial” and unsubstantiated claims that RF energy causes “non-thermal” biological effects. *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, 12 FCC Rcd 13494, 13505 ¶ 31 (1997) (*1997 RF Order*).

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Nearly every form of wireless communications—from television, radio, and cell phones to dispatch systems for police and fire departments—uses RF electromagnetic waves to send and receive signals. *See* RF Safety FAQ, Question 3, available at <https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety#Q3>. Cell phones use RF waves to connect calls “using a system of base stations—also known as cell sites—that relay calls between telecommunications networks.” FCC, Consumer and Governmental Affairs Bureau, Understanding Wireless Telephone Coverage, Consumer Guide, available at <https://www.fcc.gov/consumers/guides/understanding-wireless-telephone-coverage-areas>. Unlike radio and television broadcast stations, which generate high levels of RF energy “because of their relatively high operating power,” *1996 RF Order* ¶ 6, cell phones are “low-power devices designed to be used in the immediate vicinity of the body,” and they emit relatively low levels of RF energy. *Id.* ¶ 46.

The FCC first adopted RF rules in the 1980s, based on safety guidelines adopted by the American National Standards Institute (ANSI) in 1982. At that time, the Commission decided “to exclude” cellular phones and low-power devices “from routine environmental evaluation with respect to RF radiation” because it determined that such devices did not present “significant exposure hazards.” *Responsibility of the Federal Communications Commission to Consider Biological Effects of Radiofrequency Radiation When Authorizing the Use of Radiofrequency Devices*, 2 FCC Rcd 2064, 2065 ¶¶ 14, 16 (1987).

In 1992, ANSI adopted a new RF exposure standard (ANSI/IEEE C95.1-1992) that was “generally more stringent in the evaluation of low-power devices” than its previous standard. *1996 RF Order* ¶ 9. The following year, the FCC commenced a rulemaking proposing to revise its rules to adopt the new ANSI/IEEE RF standard in part. *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, 8 FCC Rcd 2849 (1993). That proceeding was still pending when Congress enacted the Telecommunications Act of 1996 (1996 Act), Pub. L. No. 104-104, 110 Stat. 56. Section 704 of the 1996 Act directed the FCC to “complete action” within 180 days on its pending proceeding “to prescribe and make effective rules regarding the environmental effects of radio frequency emissions.” 110 Stat. 152.

The House Commerce Committee, which drafted Section 704(b), stated that the FCC should adopt uniform federal RF standards that strike “an appropriate

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balance” between “adequate safeguards of the public health” and “speed[y] deployment ... of competitive wireless telecommunications services.” H.R. Rep. No. 204, 104th Cong., 1st Sess. Pt. 1, at 94 (1995) (House Report No. 104-204). The Committee explained that “[a] high quality national wireless telecommunications network cannot exist if each of its component[s] must meet different RF standards in each community.” *Id.* at 95. Therefore, the Committee concluded, “[n]o State or local government, solely on the basis of RF emissions, should block the construction of sites and facilities or installation of equipment which comply with the [FCC’s] RF standards.” *Ibid.* That legislative admonition was codified in section 332(c)(7) of the Act, which provides that “[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.” 47 U.S.C. § 332(c)(7).

In compliance with the deadline set by the 1996 Act, the FCC in August 1996 issued an order adopting new RF exposure guidelines. *1996 RF Order* ¶ 1. The new guidelines were “based substantially on the recommendations of ... the federal agencies responsible for matters relating to the public safety and health,” including the U.S. Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA). *Id.* ¶ 2. Consistent with the 1992 ANSI/IEEE standard, the Commission for the first time adopted RF exposure limits for cellular telephones and other portable low-power devices. *See id.* ¶¶ 63-64. Those limits were set to reflect a level of “safe [RF] exposure from low-power devices designed to be used in the immediate vicinity of the body.” *Id.* ¶ 62.

The FCC concluded that its revised RF regulations reflected “the best scientific thought” and were “sufficient to protect the public health.” *1996 RF Order* ¶ 168. In response to a petition for reconsideration, the Commission affirmed its rules, finding that the revised “RF exposure limits provide a proper balance between the need to protect the public and workers from exposure to excessive RF electromagnetic fields and the need to allow communications services to readily address growing marketplace demands.” *1997 RF Order* ¶ 29.

On review, the Second Circuit upheld the FCC’s revised RF rules. *Cellular Phone Taskforce v. FCC*, 205 F.3d 82, 88-97 (2d Cir. 2000). Observing that the establishment of “safety margins” is “a policy question, not a legal one,” the court

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held that the FCC had acted reasonably in setting RF standards that, while sufficient to protect the public, would not unduly impede the provision of wireless “telecommunications services to the public in the most efficient and practical manner possible.” *Id.* at 91-92 (internal quotation marks omitted). The court noted that “[a]ll of the expert agencies consulted” by the FCC on this issue “found the FCC’s approach to be satisfactory.” *Id.* at 90; *see also EMR Network v. FCC*, 291 F.3d 269, 273 (D.C. Cir. 2004) (affirming Commission’s denial of petition for rulemaking to revisit RF standards and upholding the agency’s reliance on the views of expert agencies).

In 2013, the FCC launched an inquiry to assess whether it should amend its RF exposure standards. *Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies*, 28 FCC Rcd 3498, 3570-89 ¶¶ 205-252 (2013) (*2013 Notice of Inquiry*). After reviewing the latest scientific research on the subject, the Commission concluded in an order issued in December 2019 that its existing RF limits “reflect the best available information concerning safe levels of RF exposure for workers and members of the general public.” *Proposed Changes in the Commission’s Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields*, 34 FCC Rcd 11687, 11689 ¶ 2 (2019) (*2019 RF Order*). The agency found no “data in the record to support modifying [the] existing exposure limits,” and “no expert public health agency expressed concern” about them. *Id.* ¶ 10. To the contrary, the FDA’s “public statements continue to support the current limits.” *Ibid.* Accordingly, the FCC terminated its RF inquiry in 2019 and “decline[d] to initiate a rulemaking to reevaluate the existing RF exposure limits.” *Ibid.*¹

FCC Rules and Procedures Governing the Evaluation of Radiofrequency Emissions by Cell Phones. Before any entity can sell cell phones in the United States, an application for equipment authorization must be submitted to an FCC-authorized Telecommunication Certification Body (TCB). *See* 47 C.F.R. § 2.911. The applicant must demonstrate that its phones comply with the FCC’s RF exposure limits by submitting with its application the results of testing “performed by an FCC-recognized accredited testing laboratory” and consistent with FCC

¹ The *2019 RF Order* is the subject of pending petitions for review. *See Environmental Health Trust v. FCC*, No. 20-1025 (D.C. Cir. filed Jan. 31, 2020); *Children’s Health Defense v. FCC*, No. 20-70297 (9th Cir. filed Feb. 3, 2020).

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specifications concerning the testing protocol. *See* FCC, Equipment Authorization Procedures, available at <https://www.fcc.gov/general/equipment-authorization-procedures>. The applicable RF limits are “quantified in terms of specific absorption rate (SAR), a measure of the rate of RF energy absorption.” *1996 RF Order* ¶ 3; *see* 47 C.F.R. § 1.1310(a). The SAR limits for RF emissions from cell phones are 0.08 watts per kilogram averaged over the whole body and 1.6 watts per kilogram (averaged over one gram of tissue) for localized exposure to areas such as the head “averaged over a time period not to exceed 30 minutes.” 47 C.F.R. § 2.1093(d)(2).

“Compliance with SAR limits can be demonstrated by either laboratory measurement techniques or by computational modeling.” 47 C.F.R. § 2.1093(d)(3). “Guidance regarding SAR measurement techniques can be found in the [FCC’s] Office of Engineering and Technology (OET) Laboratory Division Knowledge Database (KDB).” *Ibid.*

“Current evaluation procedures require” that cell phones “be tested at maximum power under normal use conditions.” *2019 RF Order* ¶ 14. To account for the different ways in which cell phones are used, RF testing for the devices is conducted both “against the head, representing normal use during a phone call, and at a separation distance of up to 2.5 centimeters (about one inch) from the body,” *ibid.*, reflecting other types of phone use, like “operation” of a phone “using a headset while the device is in [the user’s] pocket.” *2013 Notice of Inquiry*, 28 FCC Rcd at 3587 n.441; *see also* KDB Publication 447498 D01 General RF Exposure Guidance v06, “RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices” (Oct. 2015), at 10-11, available at https://apps.fcc.gov/kdb/GetAttachment.html?id=f8IQgJxTTL5y0oRi0cpAuA%3D%3D&desc=447498%20D01%20General%20RF%20Exposure%20Guidance%20v06&tracking_number=20676.

For many modern cell phones, the required testing separation distance is less than 2.5 centimeters from the body. “For example, phones with tethering capabilities (*i.e.*, ‘hotspot mode’) are tested at a maximum separation distance from the human body of 1 [centimeter]” and are tested both in and out of hotspot mode at that distance. *2019 RF Order* ¶ 14; *see* KDB Publication 941225 D06 Hot Spot SAR v02r01, “SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities” (Oct. 2015), at 2, available at <https://apps.fcc.gov/kdb/GetAttachment.html?id=I99UsWMxKw2Y756AxzqjJw%>

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[3D%3D&desc=941225%20D06%20Hotspot%20Mode%20v02r01&tracking_number=26930](#). And if cell phones that are held against the head during phone calls are also “designed to operate on the body of users” when used for other purposes, those phones “must be tested for SAR compliance using a conservative” maximum test separation distance of 0.5 centimeters “to support compliance.” KDB Publication 447498 D01. General RF Exposure Guidelines v06, at 11. The FCC has explained that the 0.5 centimeter distance is appropriate for cell phones used against the body because: (1) cell phones are “tested against the head without any separation distance”; (2) testing is currently performed at maximum power, “under more extreme conditions than a user would normally encounter”; and (3) the “existing exposure limits are set with a large safety margin, well below the threshold for unacceptable rises in human tissue temperature.” *2019 RF Order* ¶ 19.

After reviewing the exhibits and test data submitted by an applicant for equipment authorization, if the FCC-authorized TCB determines that the applicant’s cell phones comply with all applicable technical standards (including RF exposure limits), the agency issues a certification authorizing sale of the cell phones. 47 C.F.R. § 2.907(a). Certification is “the most rigorous approval process for RF devices.” FCC, Equipment Authorization Procedures, available at <https://www.fcc.gov/general/equipment-authorization-procedures>. To obtain FCC certification, cell phones must be tested “at maximum power, ... under more extreme conditions than a user would normally encounter.” *2019 RF Order* ¶ 14. Moreover, the FCC’s RF “exposure limits are set with a large safety margin.” *Ibid.* “ALL cell phones must meet the FCC’s RF exposure standard, which is set at a level well below that at which laboratory testing indicates, and medical and biological experts generally agree, adverse health effects could occur.” FCC, Consumer and Governmental Affairs Bureau, Specific Absorption Rate (SAR) for Cell Phones: What It Means for You, Consumer Guides, available at <https://www.fcc.gov/consumers/guides/specific-absorption-rate-sar-cell-phones-what-it-means-you>. In view of these safeguards built into its testing and certification procedures, the Commission has declared that “phones legally sold in the United States” (*i.e.*, FCC-certified phones) “pose no health risks.” *2019 RF Order* ¶ 14. Given that determination, the Commission found that the information already provided on the FCC’s website and in device manuals regarding the RF emissions of FCC-certified cell phones is “both adequate to inform consumers of these issues and do not risk contributing to an erroneous public perception or overwarning of RF emissions from FCC certified or authorized devices.” *Id.* ¶16.

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Apple's iPhones, the Chicago Tribune Investigation, and FCC Testing. The iPhone, a device manufactured and sold by Apple, Inc., “is a smartphone, a ‘cell phone with a broad range of other functions based on advanced computing capability, large storage capacity, and Internet connectivity.’” *Samsung Electronics Co. v. Apple, Inc.*, 137 S. Ct. 429, 433 (2016) (quoting *Riley v. California*, 573 U.S. 373, 379 (2014)). Each model of the iPhone authorized for sale in the United States was certified by the FCC after Apple submitted test data from an FCC-accredited laboratory demonstrating that its iPhones comply with the Commission’s RF exposure limits.

In August 2019, the Chicago Tribune reported that it had hired an FCC-accredited laboratory to measure the RF levels of several popular smartphones, including the iPhone 7, iPhone 8, iPhone 8+, and iPhone X. According to the Tribune, the lab tests measured SAR values for those iPhones that exceeded the FCC’s SAR limit of 1.6 watts per kilogram. *See Sam Roe, Some Phones Measure Over Federal Safety Limit*, CHI. TRIB., Aug. 22, 2019, § 1, at 1.

In response to the Chicago Tribune’s report, the FCC Laboratory in Columbia, Maryland “commenced its own testing program” of the iPhones “to determine if [they] comply with the FCC rules as asserted by [Apple] or if they are indeed operating over the RF exposure limits as claimed by the Chicago Tribune.” FCC, Results of Tests on Cell Phone RF Exposure Compliance, Dec. 10, 2019, at 3 (Report on FCC Testing), available at <https://docs.fcc.gov/public/attachments/DOC-361473A1.pdf>.

The FCC Laboratory tested three models of Apple’s iPhone: the iPhone 7, the iPhone X, and the iPhone XS. Report on FCC Testing at 5.² Pursuant to 47 C.F.R. § 2.945, the Laboratory requested—and Apple provided—samples of the iPhone 7 and iPhone X for testing. The Laboratory also purchased samples of the

² The FCC Laboratory also tested smartphones manufactured by Samsung, Motorola, and BLU. *See* Report on FCC Testing at 5. Those phones, which had been included in the Chicago Tribune report, are not at issue in this litigation.

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iPhone XS “from the open market for additional testing.” Report on FCC Testing at 3. The iPhone XS was not included in the Chicago Tribune report. *Id.* at 8 n.2.³

“FCC testing” of the iPhones “commenced on August 30, 2019[,] and concluded on September 23, 2019.” Report on FCC Testing at 3. The “SAR values” for the phones “were measured according to the procedures established in applicable FCC KDB Guidance Publications.” *Id.* at 6.

“Each cell phone model was tested for the specific bands of operations investigated by the *Chicago Tribune*’s test laboratory under the same configuration identified in [Apple’s] RF exposure compliance report submitted at the time of its application for equipment authorization.” Report on FCC Testing at 6. Likewise, the “orientations” of the tested phones (*i.e.*, their positioning) and the “test separation distances used for the FCC’s SAR testing were the same as in each device’s original certification filing” and consistent with applicable FCC-specified parameters. *Ibid.* Each iPhone was tested at a separation distance of 5 millimeters (*i.e.*, 0.5 centimeters) because the phones are designed to operate against the body. *See id.* at 8 (Table 2); *see also* KDB Publication 447498 D01. General RF Exposure Guidelines v06, at 11.

The FCC Laboratory published the results of its testing on December 10, 2019. *See* Report on FCC Testing at 8 (Table 2). It found that all of the tested phones “produced maximum 1-g average SAR values less than the 1.6 W/kg limit specified in the FCC rules.” *Id.* at 9. Specifically, the FCC Laboratory recorded a maximum measured SAR limit of 0.946 W/kg for the iPhone 7, 0.799 W/kg for the iPhone X, and 1.350 W/kg for the iPhone XS. *Id.* at 8 (Table 2). Based on the test results, the FCC Laboratory found no “evidence of violations of any FCC rules regarding maximum RF exposure levels.” *Id.* at 9.

³ Two of the iPhone models tested by the Chicago Tribune—the iPhone 8 and the iPhone 8+—were not included in the FCC Laboratory’s testing. That testing was limited to the cell phone models that were commercially available at the time.

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DISCUSSION

I. THE COURT LACKS JURISDICTION TO CONSIDER ANY CHALLENGE TO THE ADEQUACY OF FCC TESTING PROCEDURES FOR MEASURING THE RF EMISSIONS OF CELL PHONES

Plaintiffs in this case claim that certain models of Apple’s iPhone exceed the RF exposure limits established by FCC rules. To the extent that plaintiffs’ claims effectively challenge the adequacy or reasonableness of FCC testing procedures for assessing compliance with RF limits, the Court lacks jurisdiction.

The federal courts of appeals are vested with “exclusive” jurisdiction “to enjoin, set aside, suspend (in whole or in part), or to determine the validity of” final orders of the FCC “made reviewable by section 402(a) of title 47.” 28 U.S.C. § 2342(1); *see also* 47 U.S.C. § 402(a); *FCC v. ITT World Commc’ns, Inc.*, 466 U.S. 463, 468-69 (1984); *Wilson v. A.H. Belo Corp.*, 87 F.3d 393, 396-400 (9th Cir. 1996). “Litigants may not evade” this jurisdictional constraint by asking a district court “to enjoin action that is the outcome of the agency’s order.” *ITT World*, 466 U.S. at 468. Thus, as the Ninth Circuit has held, a district court lacks jurisdiction to consider any claims that would require the court to review or otherwise determine the validity of any final FCC order. *Wilson*, 87 F.3d at 399-400.

Plaintiffs in this case raise claims that appear to question the adequacy of FCC testing procedures for RF exposure—procedures that the agency recently reaffirmed in its *2019 RF Order*. Both the accredited laboratory hired by Apple (UL Verification Services) and the FCC Laboratory followed those procedures when they tested Apple’s iPhones at a separation distance of 5 millimeters and found that the phones complied with the applicable RF limits. *See* Report on FCC Testing at 8 (Table 2); KDB Publication 447498 D01, at 11 (cell phones “that are designed to operate on the body of users ... must be tested for SAR compliance” using a conservative testing separation distance of no more than 5 millimeters). But plaintiffs allege that iPhones exceed RF limits when they are carried close to users’ bodies. Plaintiffs base this claim in part on tests that measured the RF emission levels of iPhones at shorter separation distances than the FCC’s testing procedures require (*e.g.*, testing at 2 millimeters and 0 millimeters from the body).

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See First Amended Complaint ¶¶ 121, 125 (tests commissioned by Chicago Tribune), 141-42, 144-46 (tests commissioned by plaintiffs).

In its *2019 RF Order*, however, the FCC “decline[d] to revisit” its current “RF exposure evaluation procedures” for cell phones, and it expressly rejected arguments that it “should require testing” of cell phones “against the body” (*i.e.*, “with a ‘zero’ spacing”). *2019 RF Order* ¶ 14. In the Commission’s judgment, requiring testing “against the body” is “unnecessary” because: (1) cell phones are already tested against the head with no separation distance; (2) testing is performed at maximum power, “under more extreme conditions than a user would normally encounter, so any potential dangers at zero-space would be mitigated”; (3) “actual testing separation distances tend to be less than the 2.5 [centimeters] prescribed for many devices”; and (4) “a large safety margin” is built into the current exposure limits, which are set “well below the threshold for unacceptable rises in human tissue temperature.” *Ibid.*

Plaintiffs purport not to take issue with the FCC’s RF exposure limits, but seek to call Apple to account for not testing its iPhones in a manner that is not required by the Commission’s testing procedures. See First Amended Complaint ¶ 7 (Apple “cannot hide behind regulatory compliance on testing to protect its marketing and advertising which knowingly misrepresents and/or omits the actual RF radiation exposure to the user when smartphones are used while touching or near the human body”). To the extent that plaintiffs’ claims can be read to assert that the FCC’s certification procedures should require testing of cell phones at shorter separation distances—or even “zero spacing”—from the body, the Court lacks jurisdiction over them. To evaluate that assertion, the Court would need to assess the merits of the Commission’s decision in the *2019 RF Order* to retain its current testing protocols and to reject calls for certification testing at “zero spacing.” Judicial review of that decision, however, falls under the exclusive jurisdiction of the courts of appeals. See 28 U.S.C. § 2342(1); 47 U.S.C. § 402(a); see also *ITT World*, 466 U.S. at 468; *Wilson*, 87 F.3d at 399-400.

II. ANY CLAIM THAT RF EMISSIONS FROM A CELL PHONE CERTIFIED FOR SALE IN THE UNITED STATES ARE UNSAFE IS PREEMPTED BY FEDERAL LAW

In addition, plaintiffs’ claims are preempted to the extent they suggest that RF emissions from cell phones certified by the FCC for sale in the United States

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are unsafe. The RF limits that the FCC adopted in 1996—and reaffirmed last year—were designed to allow the agency to ensure that RF “exposure from low-power devices designed to be used in the immediate vicinity of the body” is “safe.” *1996 RF Order* ¶ 62. If cell phones comply with the FCC’s RF limits, the Commission deems them to be safe and certifies them for sale in the United States. In an order issued in December 2019, the FCC made clear that its existing RF testing and certification procedures adequately ensure that RF emissions from FCC-certified phones are safe. The agency explained that it approves phones for sale only after they have been tested “at maximum power,” *i.e.*, “under more extreme conditions than a user would normally encounter.” *2019 RF Order* ¶ 14. The Commission further noted that its RF exposure limits were “set with a large safety margin, well below the threshold for unacceptable rises in human tissue temperature.” *Ibid.* In view of these safeguards built into its certification process, the FCC reaffirmed that cell phones that are certified as complying with its RF limits “pose no health risks.” *Ibid.*

Federal law preempts state law when, “under the circumstances of a particular case, the challenged state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Hughes v. Talen Energy Marketing, LLC*, 136 S. Ct. 1288, 1297 (2016) (internal quotation marks omitted). “Federal regulations have no less preemptive effect than federal statutes.” *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691, 699 (1984) (internal quotation marks omitted). A state law stands as an obstacle to the implementation of a federal regulatory scheme if it conflicts with or undermines the policy judgment made by the federal agency. *See, e.g., Geier v. American Honda Motor Co.*, 529 U.S. 862, 881 (2000) (a state mandate requiring auto manufacturers to install air bags would present “an obstacle to the variety and mix of [passive restraint] devices that [a] federal regulation sought” and “the gradual passive restraint phase-in that the federal regulation deliberately imposed”).⁴ The statutorily authorized regulations of an agency will pre-empt any state or local law that conflicts with such regulations or frustrates the purposes thereof.” *City of New York v. FCC*, 486 U.S. 57, 64 (1988).

⁴ *See also Fidelity Fed. Sav. & Loan Ass’n v. de la Cuesta*, 458 U.S. 141, 156 (1982) (finding conflict preemption where a state law “limit[ed] the availability of an option [the federal regulator] considers essential to the economic soundness” of the regulated industry).

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Federal regulations also preempt state tort litigation that, if successful, would impede the achievement of federal regulatory objectives. *See Geier*, 529 U.S. at 874-86. And in evaluating the effect of state tort litigation on federal regulatory prerogatives, “the agency’s own views should make a difference.” *Id.* at 833. Thus, the Third Circuit has held that the FCC’s RF regulations preempted a state tort suit where the plaintiff, in order to prevail, would have to show that the FCC’s RF standards were “insufficiently protective of public health and safety.” *Farina v. Nokia Inc.*, 625 F.3d 97, 122, 126-27 (3d Cir. 2010).

In charging the FCC with adopting RF standards, Congress expected the FCC to use its expert judgment to balance different policy objectives. As a House committee explained in discussing the need for the FCC to complete its review of RF standards in 1996, it was “in the national interest” for the FCC to adopt “uniform, consistent [RF] requirements” that strike “an appropriate balance” between “adequate safeguards of the public health” and “speed[y] deployment ... of competitive wireless telecommunications services.... A high quality national wireless telecommunications network cannot exist if each of its component[s] must meet different RF standards in each community.” House Report No. 104-204 at 94-95. Reflecting these objectives, the RF standards adopted by the FCC “balance ... the need to protect the public and workers from exposure to excessive RF electromagnetic fields and the need to allow communications services to readily address growing marketplace demands.” *1997 RF Order* ¶ 29. *See Cellular Phone Taskforce*, 205 F.3d at 92 (upholding such balancing against APA challenge). “Allowing state law to impose a different standard” through civil litigation “permits a re-balancing of [the FCC’s] considerations” and stands as an obstacle to the uniform implementation of the Commission’s considered policy judgment. *Farina*, 625 F.3d at 123.

So too here. Under the FCC’s equipment authorization regime, if an applicant for authorization tests its cell phones in accordance with FCC testing procedures, if the tests demonstrate that the phones comply with the agency’s RF exposure limits, and if the applicant demonstrates that its phones comply with all other applicable rules and regulations, the Commission will certify the cell phones for sale in the United States. In the FCC’s judgment, any cell phones certified in this manner “pose no health risks.” *2019 RF Order* ¶ 14.

Plaintiffs maintain that Apple “cannot hide behind regulatory compliance on testing to protect its marketing and advertising which knowingly misrepresents

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and/or omits the actual RF radiation exposure to the user when smartphones are used while touching or near the human body.” First Amended Complaint ¶ 7. To the extent that plaintiffs are contending that Apple should not be selling its iPhones in the United States because they may exceed the agency’s SAR limits when tested in ways that the agency’s RF rules do not require, they are essentially challenging the testing procedures themselves. And if plaintiffs were to prevail in that challenge, they would undermine the FCC’s efforts to create and implement a uniform and reliable process for certifying that cell phones comply with RF limits. Allowing this case to proceed and “permitting alternative state [certification] standards to arise via the imposition of liability” in this lawsuit “would conflict with the [FCC’s] deliberate policy choice.” *Farina*, 625 F.3d at 123; *see also Geier*, 529 U.S. at 881. The FCC clearly expressed this view in its *2019 RF Order*, noting that “any claim as to the adequacy of the FCC required testing, certification, and authorization regime is no different than a challenge to the adequacy of the federal RF exposure limits themselves. Both types of claims would undermine the FCC’s substantive policy determinations.” *2019 RF Order* ¶ 14 n.49; *cf. Geier*, 529 U.S. at 883.⁵

Indeed, litigation like this is especially disruptive to the FCC’s certification program because plaintiffs seek relief based on third-party testing that may have inaccurately measured the RF emissions of Apple’s iPhones. “The FCC takes claims of non-compliance with its regulations seriously.” Report on FCC Testing at 3. That is why, in the wake of the Chicago Tribune report in August 2019, the FCC Laboratory conducted its own tests of Apple’s iPhone 7, iPhone X, and iPhone XS. Contrary to the tests commissioned by the Chicago Tribune and by

⁵ The Commission has already made clear that it believes lawsuits challenging the adequacy of its RF limits are preempted. *See Murray v. Motorola, Inc.*, 982 A.2d 764, 777 (D.C. 2009) (accepting the FCC’s argument that “verdicts that would hold defendants liable for damages for bodily injuries caused by cell phones that met the FCC RF radiation limit ‘would necessarily upset [the] balance [the agency struck] and ... contravene the policy judgments of the FCC’ regarding how safely and efficiently to promote wireless communication”).

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plaintiffs, the FCC Laboratory's tests confirmed that the iPhones complied with the FCC's RF exposure limits. *See* Report on FCC Testing at 8 (Table 2), 9.⁶

It is not entirely clear why the data from third-party testing deviated from the results yielded by Apple's and the FCC Laboratory's tests. One possibility, however, is that the third-party tests were not conducted in accordance with the FCC's procedures. The FCC Laboratory explained that the proper positioning of a phone during testing is critical to obtaining accurate test results: "Modern cell phones have a very large number of sensors, transmitters and antennas which need to be properly configured to ensure that the tests are conducted in the worst-case permissible operation." Report on FCC Testing at 3. Some manufacturers "design their phones to include features like proximity sensors, which reduce power when close to a user's body, to ensure that they are compliant." *2019 RF Order* ¶ 14 n.47. Therefore, "[t]esting each cell phone under its worst-case configuration requires detailed understanding of its design and antenna arrangements; most of this information is non-public and proprietary." Report on FCC Testing at 3.

These complex technical issues of phone design and configuration underscore the need for a uniform certification regime. Lawsuits like this one would needlessly disrupt the Commission's certification process and improperly impede the marketing of cell phones that the FCC has found to be safe.

⁶ If the Commission had found evidence that any cell phones did not comply with its RF limits, it would have taken appropriate measures to enforce those limits. For example, on April 2, 2020, the FCC's Enforcement Bureau announced that it had entered into a consent decree with BLU Products, Inc., to resolve an investigation into whether the company's GRAND MAX mobile phone violated the FCC's RF limits. Under the terms of the consent decree, "BLU Products admits that it violated the Commission's rules, will implement a compliance plan, and will pay a \$130,000 civil penalty." *BLU Products, Inc.*, DA 20-305, ¶ 3 (Enf. Bur. released April 2, 2020), available at <https://docs.fcc.gov/public/attachments/DA-20-305A1.pdf>.

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III. PLAINTIFFS' CLAIMS THAT APPLE HAD A DUTY TO PROVIDE FURTHER DISCLOSURES REGARDING THE RF EMISSIONS OF ITS CERTIFIED CELL PHONES CONFLICT WITH THE FCC'S CONCLUSION IN THE 2019 RF ORDER THAT SUCH DISCLOSURES COULD CREATE AN ERRONEOUS PUBLIC PERCEPTION THAT THE PHONES ARE UNSAFE

Plaintiffs allege that Apple unlawfully failed to disclose that its cell phones exceed the FCC's RF limits when carried close to the body. They claim that Apple had an obligation to provide such information to consumers. That claim conflicts with the FCC's *2019 RF Order*. It is thus likewise beyond the Court's jurisdiction (to the extent it challenges the FCC's determination that additional disclosures are unwarranted) and preempted (to the extent it conflicts with that determination).

Late last year, the FCC reaffirmed that RF emissions from cell phones it certified for sale in the United States "pose no health risks." *2019 RF Order* ¶ 14. In reaching that conclusion, the Commission found that "even if certified or otherwise authorized devices" might "produce RF exposure levels in excess of Commission limits under normal use" when used against the body, any "such exposure would still be well below levels considered to be dangerous" because the FCC's RF limits "are set with a large safety margin." *Ibid.*

The Commission also affirmed its commitment to "ensur[ing] that relevant information is made available to the public," including guidance from the FCC Laboratory "recommending that device manuals include operating instructions and advisory statements for RF exposure compliance." *Id.* ¶ 16. Among other things, the FCC Laboratory has stated that operating manuals must include "[s]pecific information ... to enable users to select body-worn accessories that meet the minimum *test separation distance* requirements." KDB 447498 D01, at 11. The Commission also emphasized the importance of the "context and placement of RF exposure information" to avoid giving the misimpression that FCC-certified cell phones are unsafe. *2019 RF Order* ¶ 16.

In an effort to supplement and contextualize the RF emissions data that appears in device manuals, "the Commission maintains several webpages that provide information about RF exposure to the public." *2019 RF Order* ¶ 16. One of those webpages informs "consumers who are skeptical" of the science

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underlying the FCC’s RF guidelines about “simple steps [they] can take to reduce [their] exposure to RF energy from wireless phones,” while also emphasizing that the Commission “does not endorse the need” for such measures. *Id.* ¶ 16 n.56 (citing FCC, Consumer and Governmental Affairs Bureau, Wireless Devices and Health Concerns, Consumer Guide, available at <https://www.fcc.gov/consumers/guides/wireless-devices-and-health-concerns>). The operating manuals for cell phones provide similar information. For example, the manual for Apple’s iPhone 11 informs users that the iPhone meets applicable RF limits, and it describes the testing procedures used to determine the iPhone’s compliance. The manual also advises users that they can “reduce exposure to RF energy” by “us[ing] a hands-free option, such as the built-in speakerphone, the supplied headphones, or other similar accessories,” and that “[c]ases with metal parts may change the RF performance of the device, including its compliance with RF exposure guidelines, in a manner that has not been tested or certified.” See <https://www.apple.com/legal/rfexposure/iphone12,1/en/>.

In the end, “[g]iven the federal safety determination” that RF emissions from certified cell phones pose no health risks, the Commission concluded that the information on its website “and in device manuals” was not only “adequate to inform consumers of [RF exposure] issues,” but also did “not risk contributing to an erroneous public perception or overwarning of RF emissions from FCC certified or authorized devices.” *2019 RF Order* ¶ 16.

State disclosure requirements that stand as an obstacle to the implementation of federal disclosure rules are preempted by federal law. *Credit Suisse First Boston Corp. v. Grunwald*, 400 F.3d 1119, 1135-36 (9th Cir. 2005) (holding that federal disclosure rules preempt disclosure requirements imposed by the California Ethics Standards). Here, the FCC has a legitimate interest in guarding against “overwarning” about the potential dangers of a product sold to consumers. See, e.g., *Merck Sharp & Dohme Corp. v. Albrecht*, 139 S. Ct. 1668, 1673 (2019) (FDA regulation of drug labeling “is designed to prevent overwarning” in order “to exclude [e]xaggeration of risk, or inclusion of speculative or hypothetical risks,” which “could discourage appropriate use of a beneficial drug”) (internal quotation marks omitted); *Mason v. SmithKline Beecham Corp.*, 596 F.3d 387, 392 (7th Cir. 2010) (“overwarning can deter potentially beneficial uses of [a] drug by making it seem riskier than warranted and can dilute the effectiveness of valid warnings”).

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In a related context, the Supreme Court has observed that “fraud-on-the-FDA claims” in state court “could cause applicants” for approval of drugs “to fear that their disclosures to the FDA, although deemed appropriate by the Administration, will later be judged insufficient in state court.” *Buckman Co. v. Plaintiffs’ Legal Comm.*, 531 U.S. 341, 351 (2001). The Court concluded that such state law claims were preempted because they could lead applicants “to submit a deluge of information that the Administration neither wants nor needs.” *Ibid.*

Plaintiffs’ claims regarding the adequacy of Apple’s disclosures risk precisely the kind of “overwarning” regarding RF exposure that concerned the FCC. If plaintiffs were to prevail on such claims, Apple could be compelled to disclose that its FCC-certified cell phones exceed the FCC’s RF exposure limits in some circumstances, even though “such exposure would ... be well below levels considered to be dangerous” given the “large safety margin” built into the FCC’s limits. *See 2019 RF Order* ¶ 14. Any such disclosures would “risk contributing to an erroneous public perception” regarding the safety of FCC-certified cell phones. *See id.* ¶ 16. Therefore, insofar as plaintiffs’ claims are based on the premise that Apple has a duty to disclose additional information about the RF emissions of its FCC-certified cell phones, they conflict with the FCC’s considered policy judgment regarding how best and in what form to disseminate relevant information about RF exposure to the public. They are thus beyond the Court’s jurisdiction and in any event preempted.

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CONCLUSION

The FCC's testing parameters reflect the agency's considered policy judgment about the best way to evaluate and ensure the safety of cell phones made available for sale in the United States. To the extent that plaintiffs' lawsuit challenges the validity or sufficiency of those parameters, the Court lacks jurisdiction to entertain those claims. To the extent plaintiffs assert claims that cell phones certified for sale in the United States are nonetheless unsafe, their claims are preempted. Finally, insofar as plaintiffs contend that Apple was required to provide additional consumer disclosures regarding its FCC-certified cell phones, those claims conflict with the FCC's contrary determination that its existing disclosure requirements adequately inform the American public. Accordingly, they are likewise beyond the Court's jurisdiction and in any event preempted.

Respectfully submitted,

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